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AMENDMENTS TO THE CLAIMS

The listing below of the claims will replace all prior versions and listings of claims in the present application:

**Listing of Claims:**

Claim 1 (currently amended): A method of producing a molybdenum-silicide-type heating element containing essentially molybdenum silicide and alloys of that material, said method comprising the steps of: producing a material that contains substantially  $Mo(Si_{1-x} Al_x)_2$  and  $Al_2O_3$  by mixing a molybdenum aluminum silicide  $Mo(Si_{1-y} Al_y)_2$  with  $SiO_2$ , wherein the  $SiO_2$  is at least 98% pure and wherein x lies in the range of 0.4 - 0.6; and forming a heating element from the produced material, wherein the heating element includes on its surface a protective  $Al_2O_3$  oxide layer that does not peel under thermal cycling of the heating element between room temperature and about 1500°C.

Claim 2 (currently amended): A method according to Claim 1, wherein the  $SiO_2$  present in the mixture is a silicate and does not affect symmetry of molybdenum silicide crystal lattice symmetry.

Claim 3 (canceled)

Claim 4 (previously presented): A method according to Claim 1, wherein x lies in the range of 0.45 - 0.55.

Claim 5 (currently amended): A method according to Claim 1, including the step of partially substituting at least one of Re or and W in the material  $Mo(Si_{1-x} Al_x)_2$  for molybdenum.

Claim 6 (currently amended): An electrical heating element that is substantially of the molybdenum silicide type and alloys of that material, said element comprising the materials  $Mo(Si_{1-x} Al_x)_2$  and  $Al_2O_3$ , wherein x lies in the range of 0.4 - 0.6; wherein SiO<sub>2</sub> having a purity of at least 98% is included in the material; and wherein the heating element includes on its surface a protective  $Al_2O_3$  oxide layer that does not peel under thermal cycling of the heating element between room temperature and about 1500°C.

Claim 7 (canceled)

Claim 8 (currently amended): A heating element according to Claim 7 6, wherein x lies in the range of 0.45 - 0.55.

Claim 9 (currently amended): A heating element according to Claim 5 6, wherein molybdenum in the material  $Mo(Si_{1-x} Al_x)_2$  is partially replaced with at least one of Re and W.

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Claim 10 (previously presented): A method according to claim 2, wherein the silicate is mullite.

Claim 11 (new): A method according to claim 2, wherein the silicate is sillimanite.